

ARGUMENTS/REMARKS

Claims 1- 25 and 36-38 are pending. No claims stand allowed.

Claims 1, 13, and 19 have been amended for further prosecution. Support for the amendment may be found, for example, in paragraph [0045]-[0047] (pages 9-10) of the present specification, and FIGS. 5A and 5B.

New claims 36-38 have been added by this amendment. Support for the claims may be found, for example, in paragraphs [0051]-[0052] (pages 11-12) of the present specification and FIG. 7.

No new matter has been introduced by this amendment.

Record of Interview

A telephone interview was conducted on August 11, 2008 between Examiner Yaima Campos and Masako Ando (Reg. No. 59,900). Applicant's proposed amendment to the claims was submitted on August 4, 2008 with Applicant Initiated Interview Request. In the interview, proposed amendment to independent claims 1, 13, and 19, and §103 rejection based on Suda and Mono were discussed. It was argued that the proposed amendment clarified the wherein clause to recite actual store operations, not intended use, and thus the limitations should be considered with patentable weight. Non-obviousness of the present invention recited in the amended claims over the prior art was discussed but no agreement was reached.

Rejection of Claims under 35 U.S.C. § 103:

Claims 1-10, 13-14, and 17-25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Suda (U.S. Pat. Application Publication No. 2004/0123059) in view of Moro (U.S. Pat. Application Publication No. 2004/0107316). In addition, claims 11-12 and 15-16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Suda in view of Moro, and further in view of Colligan et al. (U.S. Pat. No. 6,519,762). The rejections are respectfully traversed.

Claim 1 defines a method for reading data from a memory card that provides non-volatile data storage formed of a single memory array having an address space defined by a contiguous range of addresses. In the claimed method, the volume information is stored in a range of addresses that is a part of the contiguous range of addresses, and the contiguous range of the address space is capable of storing either the volume information or user data depending on a configuration of the memory card. Whether the non-volatile data storage has a first

configuration having a multiple volume address space corresponding to a first file format or a second configuration having a single volume address space corresponding to a second file format is determined based on the volume information. If the memory card has the first configuration, the memory card is operated in accordance with the first file format by dividing the address space of the non-volatile data storage into a plurality of volumes, wherein each of the plurality of volumes contains the volume information stored in a respective range of addresses therein. If the memory card has the second configuration, the memory card is operated in accordance with the second file format by accessing the entire address space of the non-volatile data storage as the single volume, wherein each range of addresses which stores the volume information in a second and any subsequent volumes under the first configuration stores user data under the second configuration.

In the Office Action, the Examiner specifically alleges that “the number of areas inside the memory card” stored in Suda’s internal register 18 corresponds to the claimed volume information, and that Suda’s first storage area 11a and first internal register 12a, second storage area 11b and second internal register 12b, etc. (in FIG. 1 of Suda) constitute the claimed contiguous address space. The Examiner further alleges that, assuming that Suda’s internal registers were not included in the address space defined by the contiguous range of addresses, it would have been obvious to place internal registers within the contiguous range or anywhere in the memory card since it involves a simple relocation of parts.

In addition, although the Examiner acknowledges that Suda fails to disclose operating the memory card by accessing the entire address space of the non-volatile data storage as the single volume when said determining (b) determines that the single volume address space is present (i.e., the memory card has the second configuration), the Examiner further contends that Moro’s single partition logically connecting three partitions of C: 801, D: 802, and E: 803 discloses the claimed single volume configuration, in which each range of addresses which stores the volume information in a second and any subsequent volumes under the first configuration stores user data under the second (i.e., single volume) configuration. The Examiner further alleges that it would have been obvious to modify the memory card of Suda with Moro’s teaching to obtain the claimed invention. Applicant respectfully disagrees for the reasons set forth below.

Regarding Suda

The Examiner alleges that Suda’s FIG. 5 having dashed lines indicating the first, second

and third storage areas “does not exclude internal registers from address space shown on the left.” However, Suda still fails to teach or suggest that any of the internal registers store user data, not the specific system data or the alleged volume information, in a different configuration. It should be noted that the internal registers 12a, 12b, 12c, 12d are the address area reserved to store specific system data such as characteristics of the memory card, flag, quantity of the storage area, the storage area number, and the like, for the corresponding storage areas 11a, 11b, 11c, 11d, respectively (paragraph [0039] of Suda). Since these internal registers are dedicated to those specific system data, without specific teaching or suggestion, it is not obvious to store user data in the internal registers in Suda.

Regarding Moro

Moro simply teaches that a plurality of partitions 162 and 163 are accessible as a single partition, or that three partitions C: 801, D: 802, and E: 803 are logically connectable (see [0038] of Moro). Moro’s FIG. 3 illustrates a state of the capacity switching-type memory card 32 when it is used in combination with the conventional memory card host device 13, while Moro’s FIG. 4 illustrates a state of the capacity switching-type memory card 32 when it is used in combination with the capacity switching-type card host device 12 (see [0045] of Moro). In the state shown in FIG. 4, the first and second partitions 162 and 163 are used as a single partition. However, as clearly illustrated in FIGS. 3 and 4 of Moro, the internal register 164 which is used in FIG. 3 is preserved untouched in FIG. 4, and is not used to store user data or as part of the single partition to store user data when the two partitions 162 and 163 are combined (allegedly corresponding to the second configuration). Moro clearly labels the internal register 164 as “UNUSED” in FIG. 4. Accordingly, Moro also fails to teach or suggest that each range of addresses which stores the volume information in a second and any subsequent volumes under the first configuration stores user data under the second configuration, as recited in claim 1.

Therefore, although Suda may be modified by Moro’s teaching so as to first, second, and third storage areas 11a, 11b, 11c are used as a single partition, Moro’s teaching requires to preserve the internal register 12a, 12b, 12c (corresponding to the internal register 164) remain unused. Accordingly, the claimed invention is not obvious from the alleged combination of Suda and Moro.

Other independent claims 13 and 19, as amended, include substantially the same distinctive features as claim 1.

Accordingly it is respectfully requested that the rejection of claims 1, 13, and 19 based on Suda and Moro be withdrawn.

Dependent Claims

Claims 2-12 and 36 depend from claim 1, claims 14-18 and 37 depend from claim 13, claims 20-25 and 38 depend from claim 19, and thus are also patentably distinct from the cited references for at least the same reasons as those recited above for the respective independent claims, upon which they ultimately depend. These dependent claims recite additional limitations that further distinguish these dependent claims from the cited references. For at least these reasons, the dependent claims are not made obvious by the prior art cited in the Office Action.

New Claims

New claims 36-38 recite specific address mapping in which the address region storing the volume information under the first configuration stores user data under the second configuration. None of the cited references teach or suggest such address mapping in two different configurations of the memory card or memory device. Accordingly, claims 36-38 provide additional grounds for patentability.

Conclusion

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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